

December 2006 Quarterly WDR Sampling Plan
(November 21, 2006)
Building 2, Former C-6 Facility
Boeing Realty Corporation,
Los Angeles, California

Table 1 presents the details of the Quarterly WDR groundwater monitoring program as required by the general Waste Discharge Requirements Order No. R4-2002-0030: Series 007. WDR wells will be gauged prior to collecting groundwater samples to determine static water levels and total well depth. Low-flow purging to maintain uniform flow rates on the order of 0.1 to 0.5 liters/min will be used to collect groundwater samples and minimize disturbance to the groundwater in the well such that drawdown is less than 0.3 foot. Please note that IRZB0081 and IRZB0095, which are 3/4-inch diameter wells need to be sampled with appropriately sized low-flow pump (such as 1/2-inch Durham Geo Mini Bladder Pump or equal). In addition, due to the small size of these wells no water level measurements can be taken during purging. Samples collected from each well will be tested for biogeochemical parameters using a YSI unit, field test kits, and fixed-base laboratory analyses. The YSI unit or equal, with flow through cell, will be used to measure pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), Electrical Conductivity (EC), and temperature. A turbidity meter (Hach 2100P or equal) shall be used to monitor turbidity of the water during purging. Hach, Inc. field test kits will be used to measure ferrous iron (Fe [II]) and hydrogen sulfide for the WDR wells as shown on Table 1. During purging, at least pH, conductivity, turbidity, and DO should stabilize such that three successive readings should be within ± 0.1 for pH, $\pm 3\%$ for conductivity, and $\pm 10\%$ for turbidity and DO. During the purging, a minimum of one tubing volume (including the volume of water in the pump and flow cell) must be purged prior to recording the water-quality indicator parameters. Following field test kit analyses, all samples will be collected for analysis of volatile organic compounds (VOCs) by EPA Method 8260B and total sulfides by EPA Method 376.1 or approved equal. All other procedures, including quality assurance (QA) and data validation, will be as described in the 2006 Groundwater Monitoring Work Plan (CDM, January 31, 2006).

Table 1
December 2006 Quarterly WDR Monitoring Program
Former C-6 Facility
Los Angeles, California

Well ID	Water Bearing Unit	Sampling Order ¹	Quarterly Groundwater and WDR Event Analytical Program December 2006				
			Water Level Gauging	VOCs	Total Sulfides	Field Parameters ²	Hydrogen Sulfide (Field Measurement)
Groundwater Monitoring Wells - WDR							
CMW001	C-Sand	1	x	x	x	x	x
CMW002	C-Sand	3	x	x	x	x	x
CMW026	C-Sand	6	x	x	x	x	x
Bioremediation Monitoring Wells - WDR							
IRZB0081	B-Sand	4	x	x	x	x	x
IRZB0095	B-Sand	8	x	x	x	x	x
IRZMW001A	B-Sand	15	x	x	x	x	x
IRZMW001B	B-Sand	10	x	x	x	x	x
IRZMW002A	B-Sand	14	x	x	x	x	x
IRZMW002B	B-Sand	7	x	x	x	x	x
IRZMW003A	B-Sand	16	x	x	x	x	x
IRZMW003B	B-Sand	5	x	x	x	x	x
IRZMW004	B-Sand	11	x	x	x	x	x
IRZMW005	B-Sand	12	x	x	x	x	x
IRZCMW001	C-Sand	9	x	x	x	x	x
IRZCMW002	C-Sand	2	x	x	x	x	x
IRZCMW003	C-Sand	13	x	x	x	x	x
Quality Control Samples							
Duplicates (1 per 20 wells)				x (est. 1)			
Rinsate Blanks (1 per day)				x (est. 4)			
Field Blanks (1 per day)				x (est. 4)			
Decon Water (1 per day)				x (est. 4)			
Trip Blanks (1 per day)				x (est. 4)			

Notes:

est. = Quality control sample number estimated based on estimated number of sampling days.

VOCs = Volatile organic compounds by EPA Method 8260B and Total Sulfides by EPA Method 376.1 or EQUAL

¹ Sampling order for December 2006 based on the results of the September 2006 quarterly event

² Field Parameters = pH, turbidity, dissolved oxygen (DO), oxidation-reduction potential (ORP), electrical conductivity (EC), temperature, ferrous iron, and hydrogen sulfide